WHAT IS CLAIMED IS:

1. An engine structure of a snowmobile, in which an upper front half of a vehicle body of the snowmobile is covered to be openable by an engine hood so as to form an engine room in which an engine is disposed and the engine has a turbo-charger mounted thereon,

wherein a headlight is disposed above a rear portion of the engine hood, and the engine is arranged in a state inclined rearward downward so that a cylinder head of the engine is disposed below the headlight in a side view and the turbo-charger is arranged below the cylinder head.

2. An engine structure of a snowmobile according to claim 1, wherein said engine is arranged so as to be offset in one direction in a plan view and an inter-cooler is disposed on a side opposite to the side on which the engine is off-set.

3. An engine structure of a snowmobile according to claim 2, wherein said inter-cooler is attached to a mount bracket, with a cushion being interposed therebetween, in a state inclined forward downward, and the mount bracket is attached to a boss formed to the engine.

4. An engine structure of a snowmobile according to claim 3, wherein said inter-cooler is mounted to the mount bracket

through bolts disposed to the mount bracket substantially perpendicularly in an upward direction.

5. An engine structure of a snowmobile according to claim 1, wherein an oil filter for filtering lubricating oil of the engine is disposed to be detachably at a front lower portion of the engine and below the turbo-charger in a forward tilting state.

6. An engine structure of a snowmobile according to claim 5, wherein a water-cooling oil cooler for cooling the lubricating oil is disposed to an affixing base of the oil filter in series of the oil filter.

7. An engine structure of a snowmobile according to claim 6, wherein a cooling water passage for cooling the turbo-charger and a cooling water passage of the oil cooler are communicated with each other through a cooling water tube.

8. An engine structure of a snowmobile according to claim 2, wherein a skid for steering operation is disposed in a front lower portion of the vehicle body so as to be supported by a front suspension mechanism in a shock-absorbable manner, and an air box for introducing an outside air is arranged in front of the turbo-charger and the suspension mechanism.

9. An engine structure of a snowmobile according to claim 2, wherein a meter panel is further disposed behind the headlight and an intake manifold is arranged behind the cylinder head and in a space between the meter panel and the headlight.

10. An engine structure of a snowmobile according to claim 9, wherein an equipment box, in which electronic equipments for controlling engine operation are disposed, is arranged at a rear portion of the intake manifold.

11. An engine structure of a snowmobile according to claim 2, wherein the turbo-charger is provided with an exhaust port from which an exhaust pipe extends and a muffler is connected to a downstream side end of the exhaust pipe so as to be located below the inter-cooler.

12. An engine structure of a snowmobile according to claim 2, wherein a battery is disposed behind the inner-cooler.